

spectacle lens according to the invention, whose various properties are shown in Figs. 1b to 6b, is calculated according to the method set forth in Claim 1 (and the respective dependent claims), namely, by introducing a negative deviation of the value of average use power (i.e. average power in use position) in the far reference point with respect to the ordering value for the average use power in the far reference point. That is, the progressive lens is calculated such that the value of the average use power in the far reference point is less than the ordering value. The intentionally introduced negative deviation in the far reference point of the preferred progressive lens shown in Figs. 1 to 6 is 0.1 dpt.

More specifically, Figs. 1a and 1b show the distribution of the refractive power (in use position) of a conventional lens (Fig. 1a) and a preferred spectacle lens produced according to the invention (Fig. 1b). Figs. 2a and 2b show the distribution of the astigmatism (in use position) of the conventional lens (Fig. 2a) and the preferred spectacle lens of the invention (Fig. 2b). Figs. 6a to 6c show surface properties of the preferred spectacle lens of the invention shown in Figs. 1b and 2b. In particular, Fig. 6a shows the surface height of the preferred spectacle lens, Fig. 6b shows the average surface power of the preferred spectacle lens, and Fig. 6c show the surface astigmatism of the preferred spectacle lens.

Figs. 3 to 5 show the distribution of the relative reduction of the visual acuity as a result of imaging errors of the conventional and the preferred lens of the invention shown in Figs. 1 and 2. In particular, Figs. 3a and 3b show the relative reduction of the visual acuity when no additional, undesired refraction

error occurs; Figs. 4a and 4b show the relative reduction of the visual acuity when additional, undesired negative refraction error of -0.2 dpt occurs; and Figs. 5a and 5b show the relative reduction of the visual acuity when additional, undesired positive refraction error of +0.2 dpt occurs. Undesired, additional positive or negative refraction errors may occur, for example, during the process of manufacturing the lens or may, for example, due to incorrect refraction determination for determining the prescription or ordering values. The additional, undesired negative refraction error is, however, not to be confused with the intentionally introduced, desired negative deviation of the average use power in the far reference point from the ordering value. Similarly, the additional, undesired positive refraction error is not to be confused with the intentionally introduced, desired position deviation of the calculation addition from the prescribed addition as set forth, for example, in Claims 11 and 12.

Figs. 4a and 4b do not show progressive lenses with a negative, intentional deviation of -0.2 dpt of the average use power in the far reference point from the ordered value, as assumed by the Examiner. Similarly, Figs. 5a and 5b do not show progressive lenses with a positive, intentional deviation of +0.2 dpt of the average use power in the far reference point from the ordered value. Rather, Figs. 4 and 5 show the relative reduction of the visual acuity when additional, undesired negative (Fig. 4) or positive refraction error of +/- 0.2 dpt occurs. As above described, the preferred lens of the present invention, to which both Figs. 4 and 5 relate, exhibits an intentionally introduced, desired negative deviation

(-0.1 dpt) of the average use power in the far reference point from the ordered value.

One advantage of the method for producing a spectacle lens, respectively, a progressive lens, wherein an intentional negative deviation of the average use power from the ordered value is introduced in the far reference point is that the progressive lens becomes less sensitive to small additional refraction errors, particularly additional positive refraction errors. In particular, when positive undesired additional errors occur, the size of the far vision range is less significantly reduced as compared to conventional lenses. Figs. 4b and 5b illustrate the lower sensitivity of the spectacle lens according to the present invention to such additional, undesired negative and positive refraction errors as compared to a conventional progressive lens in Figs. 4a and 5a, respectively.

For the foregoing reasons, an early action on the merits of all the claims is earnestly solicited.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

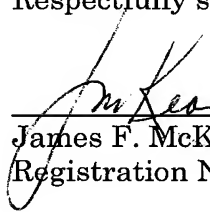
If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

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please charge any deficiency in fees or credit any overpayments to Deposit  
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Respectfully submitted,

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